

ABSTRACT OF THE DISCLOSURE

Interpenetrating organic and inorganic networks with a maximum dimension of 100 nm are produced by: (1) mixing aqueous solutions or dispersions of organic polymers capable of forming polymer networks in aqueous phase, polymer precursors or the mixtures thereof and silicon dioxide components; (2) changing the pH value and/or thermally treating the aqueous solution or dispersion in order to form a gel made of interpenetrating organic and silica gel networks and (3) drying the gel.